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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,742	09/28/2006	Shigeya Naritsuka	070456-0153	4940
20277	7590	05/26/2010	EXAMINER	
MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096			SAYADIAN, HRAYR	
			ART UNIT	PAPER NUMBER
			2814	
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			05/26/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/594,742	Applicant(s) NARITSUKA ET AL.	
	Examiner HRAYR A. SAYADIAN	Art Unit 2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 09 February 2010.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-12 is/are pending in the application.
4a) Of the above claim(s) 9, 10 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) _____ is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) 1-8 and 11-12 are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED OFFICE ACTION

1. The 2/8/2010 Reply, electing Species A, is noted.
2. Examiner called Mr. Shelton and inquired whether Applicant might elect through an interview. Mr. Shelton explained that a written action would be better for this Applicant.

Requirement for Unity of Invention

3. As provided in 37 CFR 1.475(a), a national stage application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept (“requirement of unity of invention”). Where a group of inventions is claimed in a national stage application, the requirement of unity of invention shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression “special technical features” shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

The determination whether a group of inventions is so linked as to form a single general inventive concept shall be made without regard to whether the inventions are claimed in separate claims or as alternatives within a single claim. See 37 CFR 1.475(e).

4. Within Species A, this application contains claims directed to inventions lacking unity. These inventions lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The inventions are as follows:

Invention 1: An embodiment described with respect to FIG. 1, wherein there is a no buffer layer 12. Claim 4 is directed to this invention. This invention is a species of invention 2. This invention is classified in class 257, subclass 94.

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Invention 2: An embodiment described with respect to FIG. 2, wherein there is a buffer layer 12. Claim 3 is directed to this invention. This invention is a species of invention 1. This invention is classified in class 257, subclass 94.

Invention 3: An embodiment wherein the electrode is arranged to surround the ELO layer. Claim 6 is directed to this invention. This invention is a species of invention 4. This invention is classified in class 257, subclass 99.

Invention 4: An embodiment wherein the electrode is arranged to be surrounded by the ELO layer. Claim 7 is directed to this invention. This invention is a species of invention 3. This invention is classified in class 257, subclass 99.

Between inventions 1-4, lack unity of invention exists because even though the inventions of these claims require the technical feature of claim 2, the genus, this technical feature is not a special technical feature as it does not make a contribution over the prior art in view of U.S. Pat. No. 6,995,406 to "Tojo" and "Complete Guide to Semiconductor Devices," by Kwok "Ng," 2nd Edition, (2002), pp. 396 and 397.

Specifically, Tojo discloses a GaP substrate, ELO layer over the GaP layer, and active layer over the ELO layer. See, for example, column 3, line 65 to column 4, line 3, and column 5, line 4-18. And Ng discloses that a person of ordinary skill in the art at the time of the invention of this application well recognized an active layer comprising an n-type layer and a p-type layer to be suitable for use in LED.

Inventions 1-4 are characterized as related products. A requirement for unity of invention is proper if: (1) the inventions are "distinct," and (2) examining the inventions together would be a "serious burden."

In the case of related products, the inventions are distinct if the following can be shown: the inventions as claimed (1) do not overlap in scope, i.e., are mutually exclusive;

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(2) are not obvious variants; and (3) are either not capable of use together or can have a materially different design, mode of operation, function, or effect.

The above-identified inventions are distinct from each other because of the following reasons:

In the instant case, inventions 1-4: (1) do not overlap in scope, i.e., are mutually exclusive as explained above, and do not share a special technical feature; (2) are not obvious variants over each other because they are different, and nothing on the record indicates them to be obvious over each other; and (3) can have a materially different design, mode of operation, function, or effect because invention 1 cannot be used in the manner of invention 2 (either the buffer is there or it is not), inventions 3 and 4 are also mutually exclusive (either the ELO surrounds the electrode or is surrounded by it), and either of inventions 1 and 2 can be used in a manner different from either of inventions 3 and 4 (for example, whether or not a buffer is there, the electrode can be arranged so as neither to surround the ELO nor to be surrounded by it).

The first prong of the test therefore is satisfied.

In the instant case, moreover, searching and examining the inventions together is a serious burden on Examiner because, as shown by their different classifications, the inventions have acquired a separate status in the art. Additionally, since the inventions are differently classified or mutually exclusive, examining the inventions is a serious burden because examining them requires searching different classes/subclasses or electronic resources, and employing different search queries. See, for example, M.P.E.P. § 808.02, describing how "serious burden" on Examiner is established.

The second prong of the test therefore is also satisfied.

Additionally, searching for and examining these distinct inventions together causes serious burden because searching for the mutually exclusive and different characteristics of the inventions requires different fields of search (including employing different search queries). Furthermore, the inventions are likely to raise different non-prior art issues under 35 U.S.C. § 101 or 35 U.S.C. § 112, first paragraph, or both.

Accordingly, restricting the claims directed to the different inventions of Groups I, II, and III is proper.

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5. Claims 1, 2, 5, 8, 11, and 12 are generic with respect to inventions 1-4 and, therefore will be examined with whichever invention the Reply elects.

A complete reply to this requirement must:

- 1. elect an invention (one and only one of inventions 1-4) to be examined even though the requirement may be traversed (37 CFR § 1.143); and**
- 2. list all claims reading on the elected invention, including any claims subsequently added.**

An argument that all claims are allowable, or that the requirement is in error, is nonresponsive unless accompanied by an election. See, for example, M.P.E.P § 818.03(b).

To preserve a right to petition under 37 CFR § 1.144, Applicant must elect with traverse. See, for example, M.P.E.P. § 818.03(c). An untimely traversal loses the right to petition under 37 CFR § 1.144. A traversal must be presented at the time of election to be considered timely.

If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. See, for example, M.P.E.P § 818.03(a).

Should Applicant traverse on the ground that the species are not patentably distinct, Applicant should submit evidence or identify such evidence now of record showing them to be obvious variants or clearly admit on the record that this is the case. In either instance, if Examiner finds one of the Inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. § 103(a) of the other species.

If claims are added after the election, Applicant must indicate which of these claims are readable on the elected invention. See M.P.E.P. § 809.02(a).

Upon the cancellation of claims to a non-elected invention, Applicant must amend the inventorship complying with 37 CFR § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application.

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Amending inventorship must be accompanied by a request under 37 CFR § 1.48(b) and include the fee required under 37 CFR § 1.17(i).

Upon the allowance of a generic claim, Applicant will be entitled to consideration of pending claims to additional inventions depending from, or otherwise requiring all the limitations of, an allowable generic claim as provided by 37 CFR § 1.141.

CONCLUSION

6. A shortened statutory period for reply to this Office Action is set to expire **ONE MONTH** from the mailing date of this Office Action. Applicant is reminded of the extension of time policy as set forth in 37 CFR § 1.136(a).

Any inquiry concerning this communication or earlier communications from an Examiner should be directed to Examiner Hrayr A. Sayadian, at (571) 272-7779, on Monday through Friday, 7:30 am – 4:00 pm ET.

If attempts to reach Mr. Sayadian by telephone are unsuccessful, his supervisor, Supervisory Primary Examiner Wael Fahmy, can be reached at (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available only through Private PAIR.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. The Electronic Business Center (EBC) at (866) 217-9197 (toll-free) may answer questions on how to access the Private PAIR system.

/Hrayr A. Sayadian/

Patent Examiner, Art Unit 2814